

Harris. (R. P.) *al*

THE OPERATION OF
PRIMARY LAPAROTOMY

IN CASES OF

EXTRAUTERINE PREGNANCY,

WITH A TABULAR RECORD, SHOWING THE RESULTS
IN TWENTY-^{extra}~~SIX~~ WOMEN, UNDER TWENTY-SIX
OPERATORS.

BY

ROBERT P. HARRIS, A.M., M.D.,

PHILADELPHIA.

[Reprinted from the AMERICAN JOURNAL OF OBSTETRICS AND DISEASES
OF WOMEN AND CHILDREN, Vol. XX., November, 1887.]

329

NEW YORK:
WILLIAM WOOD & CO., PUBLISHERS,
56 & 58 LAFAYETTE PLACE.
1887.

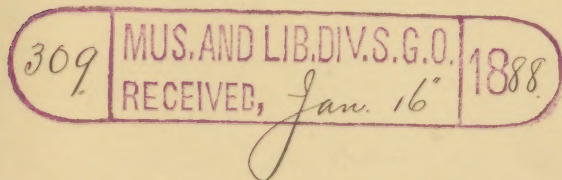
329, S. 12th St. Phila.

Jan. 11th 1888.

Dear Dr.

I mail you a corrected reprint just received, in which you will find the list of references promised, for your catalogue several months ago. There have been three cases reported since my paper was in type, increasing the record to 30 - with 5 recoveries.

Yours Respectfully:
Robert P. Harris.



MUS. AND LIB. DIV. S. G. O. 1888
RECEIVED, Jan. 16

309

POSTAL

UNITED STATES



CARD.

ONE CENT

NOTHING BUT THE ADDRESS TO BE ON THIS SIDE.

Dr. John S. Billings.

U. S. A.

War Department

Surg. Gen's Office

Washington.

D. C.

THE OPERATION OF
PRIMARY LAPAROTOMY

IN CASES OF

EXTRAUTERINE PREGNANCY,

WITH A TABULAR RECORD, SHOWING THE RESULTS
IN TWENTY-SIX ^{even} WOMEN, UNDER TWENTY-SIX
OPERATORS.

BY

ROBERT P. HARRIS, A.M., M.D.,

PHILADELPHIA.

[Reprinted from the AMERICAN JOURNAL OF OBSTETRICS AND DISEASES
OF WOMEN AND CHILDREN, Vol. XX., November, 1887.]

NEW YORK:
WILLIAM WOOD & CO., PUBLISHERS,
56 & 58 LAFAYETTE PLACE.
1887.

THE OPERATION OF
PRIMARY LAPAROTOMY
IN CASES OF
EXTRAUTERINE PREGNANCY,
WITH A TABULAR RECORD, SHOWING THE RESULTS
IN TWENTY-SEVEN WOMEN, UNDER TWENTY-
SIX OPERATORS.

THE proper management of a case of ectopic gestation will depend very much upon the stage of development to which the fetus has advanced when the patient first comes under the observation of a physician, or when he first recognizes the true character of the pregnancy. In a large proportion of cases, nothing abnormal is suspected by the woman, and no medical attendant is consulted, until, after an attack of pain and faintness, it is discovered that she is bleeding internally, and in danger of death, from the sudden bursting of a Fallopian fetal cyst, the proper treatment for which is immediate laparotomy, with ligation and exsection of the cyst, followed by a careful washing out of the abdominal cavity. This is not a *primary* operation, which belongs to a much older classification, but a new and distinct method of management, first carried into a successful issue under Mr. Lawson Tait, and which, for the sake of distinction, may be called the early hemostatic laparotomy for Fallopian pregnancy. But the Fallopian fetal cyst does not necessarily burst in a direction to discharge its contents into the abdominal cavity, as it may give way at the bottom, and the fetus continue its development between the laminae of the broad ligament outside of the peritoneal cavity, and ultimately present in the back of the vagina, to be delivered, at or near maturity, by *elytrotomy*, which has been very erroneously called the "vaginal Cesarean operation." In exceptional cases, the Fal-

lopidian cyst will give way at a part so thin that the small vessels torn across bleed comparatively little; the escaped fetus does not die, and the woman, after perhaps an attack of peritonitis or exhaustion, recovers, while the fetus grows nearly or quite to full maturity in her abdominal cavity. Again, the Fallopian cyst may continue in its integrity, and the fetus develop within it for three, four, or more months, giving rise to sensations leading the woman to seek medical advice, and it may be to the discovery of the cause of uneasiness, under a careful vaginal examination, aided by abdominal pressure and palpation with the other hand. Such a fetus may die from some unknown cause, its presence be detected, and its removal effected by abdominal section, ligation, and exsection. But so fortunate a result as this is rarely to be met with, and the death of the fetus must be secured, to prevent it becoming a source of fearful danger to the mother, by means of some feticidal method, not likely to destroy both. This result has been repeatedly attained, particularly in the United States, by means of faradization, no puncturing needles, which are apt to convert a safe into a fatal operation, being resorted to. There may be some doubt as to the positiveness of the diagnosis in all cases; but it is safer to pass in error a galvanic current through a tumor than to allow a growth, which may prove to be fatal, to continue its dangerous development.

In many cases, however, an extrauterine pregnancy escapes detection until too late to employ a feticidal method with any ulterior advantage to the patient. In fact, the woman may have already gone nearly or quite to her full period of cysto-gestation, and be suffering with the pains of a *pseudo* labor, which has often been mistaken for the normal process. The discovery of the true condition of the woman is at last positively determined, and the fetus is ascertained to be alive. In the whole range of obstetric surgery, there is no form of case which has a greater degree of interest, or presents a more puzzling question as to what it is proper to do on the part of the operator. To save both mother and fetus, as by the Cesarean operation, is very naturally his desire; but the history of the past in *primary* laparotomy, as the section which is designed to save the life of the mother and that of her viable fetus is called, shows that he only has one chance in nine of preserving the life of the former; and one out of two of saving the latter. Two points,

then, present themselves to him for consideration. He finds that there is much danger to be apprehended, that the *pseudo*-labor may produce a rupture of the gestative sac, and the death of both child and mother; and he also learns that, when the woman has passed through this period of danger, and her child is dead, a longer delay of ten weeks, on the average, will enable him to perform *secondary* laparotomy, as it is called after fetal death, with a prospect of saving the woman of perhaps seventy per cent or more. The two operations are precisely the same in their method of performance, but differ vastly in their prospective results. This difference is not effected at once by the death of the fetus, as may readily be ascertained by an examination of the cases where secondary laparotomy has been performed only a few days or a week or two after fetal death, in which event the mortality of the primary and secondary operations is equal.

A great step in the advance was made both for the primary and secondary laparotomies, but especially the latter, when Mr. William Turnbull, of London, in 1791,¹ and Dr. James Mease, of Philadelphia, in 1795,² discovered the vital importance, the former by an autopsy, and the latter from the result of an operation under Dr. Charles McKnight, of New York, of leaving the fetal cyst and placenta to be separated and discharged spontaneously. Prof. Koeberle, of Strassburg, is under the impression that this recommendation originated with him, many years later;³ but he has evidently not seen the papers of Taraball and Mease, written long before he was born. The world of surgery was a long time in adopting their suggestions, and even now an operator may occasionally be found who is unwise enough to tear away the placenta after a puerperal elyotomy or a secondary laparotomy, and learns by a sad experience that this is not a proper way to operate.

Elements of Danger in Primary Laparotomy.—1. The condition of the placenta, which is still functionally active up to the moment of separating the fetus from it. 2. The abnormal characteristics of the placenta itself. 3. The special and ectopic position of the placenta in each individual case. 4. The vas-

¹ "Memoirs," Med. Soc. London, vol. iii., 1792, p. 176.

² "Memoirs," Med. Soc. London, vol. v., 1795, p. 342-347.

³ Letter recently received. Koeberle's operation was on March 10th, 1869; fetus dead $4\frac{1}{2}$ months.

cularity of the cyst-wall. And 5. The non-contractile basis upon which the placenta is located.

During the life of the fetus, and for a varying period after its death, the vascular character of the placenta, and its relations to the maternal blood supply, render the prospective separation of this organ one of the most serious moment. After fetal death, the placental functions cease, the vessels of the cord gradually close, as do also those directly concerned in the oxygenating process of the child's blood; the placenta, if so located as to be well developed, undergoes a process of carnification, becoming more solid and tough, and much less vascular; and the vessels which enter it from the mother are only of a number and caliber sufficient to keep its tissues from decomposition. If, after this condition is completed, the fetus be removed by (secondary) laparotomy, it will readily be seen that exfoliation may slowly take place, without opening any important blood-vessel, or necessarily favoring the absorption of septic matters formed under the process. It will also be as easily understood that when the converse of all this is the case, and the placenta begins to separate after a primary operation, its very first step in exfoliation may open a large sinus or important supplying vessel, and lead to very serious or fatal hemorrhage. Even where the process of decomposition and separation is a gradual one, and no sudden, severe hemorrhage results, the amount of grumous, offensive discharge is very exhausting to the patient, and there is imminent danger of septic peritonitis or septicemia. If the woman should be so fortunate as to escape death, it will be after a long, tedious, and exhausting illness, as shown by the original record of the Jessop case (No. 9 of my tabular statement). If, by any new device of surgery, this exfoliation of the placenta could be prevented, we should then have this organ undergo the changes that take place where the fetus is carried many years, and perhaps lead to its entire absorption from the absence of the fetus. In Case III., where the placenta was very favorably located (in the iliac fossa), the trial was made of leaving this body intact, and closing the wound; but exfoliation began on the sixth day; a fetid matter was discharged, there was an arterial hemorrhage, and the woman died, on the twentieth day, of septic peritonitis. This experiment, under similar advantages of placental location, after proper asepsis, is worthy of a repetition at the present day. The funis should be tied

close to the placenta, the cord cut short, the cyst washed out and closed with seroso-serous sutures after the process of Lembert, and the abdominal wound sutured, without drainage.

In an extrauterine pregnancy, the form and character of the placenta are never truly normal, except in the very rare instance where it alone is within the uterine cavity, while the cyst containing the fetus is external to it, and within the abdominal cavity. Such a protrusion may take place through an old weak uterine cicatrix, the result of a Cesarean operation; or the pregnancy may be of the form given by Moreau, as the "utero-tubo-abdominal," the title explaining the condition. An ectopic placenta varies in character, size, and form, according to its peculiar location, and the vascularity of the parts over which it may be implanted. In some rare instances, as in the Turnbull case already quoted, the report of which is illustrated by three large engravings, no true placental tissue is found, the cyst at one point being very vascular where the cord-vessels are given off. The placenta may be small and thin, or very broad and thin; it may be divided into several portions; it may be unusually large and heavy, as once was observed in a case operated upon by secondary laparotomy, by Prof. T. Gaillard Thomas. It has been found decidedly hypertrophied and having a thickness of three inches, as related by the late Prof. Hugh L. Hodge; but as a general rule, it is smaller and more dense than an intrauterine placenta, and much more strongly attached.

The multiplicity of the positions occupied by the placenta, and the varying character of its vascular connections, make the operation of primary laparotomy, at best, one of very doubtful anticipation. The fact that, in one out of every six or seven cases, the placenta is spread out upon the peritoneal surface of the abdominal wall, and may be directly under the line of incision through the linea alba, adds very materially to the risk of operating; the initial step of which may be a fatal one to the woman, as cutting into this body is here infinitely more dangerous, and the hemorrhage provoked far more uncontrollable, than in gastro-hysterotomy, where it may be rapidly separated by the hand, and the uterine contraction relied upon to arrest the bleeding. There would appear, from the reports of many operations and autopsies, that there is no section of the abdominal cavity in which the placenta may not be found. Its separation, therefore, must be attended with more or less immediate risk in each

individual case, as exfoliation may begin very soon after the removal of the fetus, or be delayed for several days. Severe hemorrhage may attend the process of separation, or the discharge may be sanious, fetid, and in large quantity, exhausting to the patient and dangerous from its septic character. The placenta has been found in the post-uterine concavity; attached to the outer surface of the uterus and its appendages; overlying as a lid the pelvic superior strait, as in the Jessop case (No. 9); attached to the iliac fossa; spread out over the lower lumbar vertebræ; overlying one or both kidneys; attached to the mesentery and colon; to the stomach and omentum; and buried among the small intestines; besides, as I have already stated, spread out upon the inner surface of the abdominal wall, laterally or centrally.

This variation in character and location of the extrauterine placenta, and the fact that it is attached to a non-contractile base, which cannot, by rapid diminution in size, shut up its large blood-vessels, as in the uterine subsidence after fetal expulsion, constitute the main obstacle to success in primary laparotomy, and make it much less certain in character as a surgical procedure than any other form of abdominal operation. This same variation in placental development, due largely to the special location it may occupy, constitutes another obstacle to success in the operation, designed as it is to save two lives, because of the fact that the fetus is, in a large proportion of cases, inferior in size and strength to one of a corresponding age of gestation developed in utero, and is, consequently, much more difficult to raise, or even to keep alive for a few days. Besides this, ectopic fetuses are apt to have some physical defect which may be of vital importance, as in case 21, where there was a large encephalocele. The defective or slow growth in an abdominal fetus makes it important that, where practicable, it should not be removed under the knife until, by a full maturity of gestative age, it shall be prepared to live on, in extra-abdominal existence. Of fifteen children delivered at full maturity, ten lived; and of twelve that were more or less premature, only three lived. Of the whole twenty-seven children, the fourteen that were lost died in from a few minutes up to fifty hours. The three surviving premature children were of 34 weeks, 34½ weeks, and 8 months, respectively.

Vascularity of the cyst-wall may prove in some exceptional

cases, such as that examined post mortem by Mr. Turnbull, a somewhat serious obstacle to the removal of the fetus, but the use of hemostatic forceps, followed by ligation of the vessels, will overcome the difficulty. Extensive adhesions between the cyst and contiguous viscera may prevent the plan now generally adopted, of stitching the edges of the abdominal and cyst wounds together, as was done by Prof. Eugène Koeberle, of Strasburg, in 1871, and probably originated with him; the non-removal of the placenta certainly did not, as I have already shown. Prof. Koeberle aided to bring a knowledge of the latter to the notice of operators on the continent; and his success with it brought about its revival in Great Britain, where the recommendations of Mr. Turnbull and Dr. Mease had been largely overlooked; his use of the drainage tube has also become general in the operation, as the amount of fluid discharged makes it very essential for abdominal cleansing.

Causes of death under Primary Laparotomy.—These may be given in few words, having been already partially anticipated. A careful examination of the records of the twenty-seven cases presented in the accompanying table shows the following: In eleven cases, the patients were in a critical state at the time of the operation; peritonitis already existing in six women; the sac being ruptured in three. Hemorrhage appears to have been the main cause of death in twelve out of the twenty-four patients lost, but was complicated with peritonitis in three, and septicemia in one. Death was attributed mainly to septicemia in three; to peritonitis in three; to heart clot in one; to "shock" in one; and to "collapse" in one. A careful autopsy in every case would, no doubt, have given more definite causes of death, and discovered heart-clots in more than the one case. In rapid death after operation, hemorrhage no doubt plays an important part; except it may be in cases much broken down before its performance, when shock and exhaustion can prove fatal without marked blood-loss. Where repeated hemorrhages take place, and life is prolonged some days, septic infection would appear to play an important part, acting simply, or in association with peritonitis. All these discouraging conditions in expectancy make the prognosis in laparotomy, where the fetus is living and viable, very unfavorable. Rigid antiseptic after-treatment may possibly somewhat reduce the mortality, as it has in early secondary laparotomy, where the dangers are of the same character, but

of a lower grade: but until some measure is devised, if it be indeed practicable even in special cases, for cutting off the sub-placental circulation, and thus preventing hemorrhage and septic absorption, the operation must continue, as it is now, the approbrium of abdominal surgery. *Case 25* is somewhat in advance of all older operations, and is specially memorable because the operator has saved the only woman operated upon at full term; the steps of the operation are as follows:

After removing the fetus, a female, $17\frac{3}{4}$ inches long, and under 6 lbs. in weight, Prof. Lazarewicz thought to attempt the enucleation of the placenta and cyst, but finding this step impracticable, he proceeded as follows: He separated the sac and drew it up through the wound, with part of the placenta; then passed six metallic sutures across the superior third of the abdominal wound down to the part occupied by the cyst; then with a long uninterrupted suture of catgut, after drawing out as much as practicable of the sac and placenta, he sewed in the parts into the edges of the inferior portion of the abdominal wound. This done, he drew the catgut, so as to purse up the parts and put the blood-vessels under pressure; then passed four more metallic sutures across, through abdomen, sac, and placenta; and finally passed a drainage-tube through the cyst, Douglas' cul-de-sac, and vagina, tying the cord to it with a catgut ligature. A case must be quite exceptional that will admit of the placenta being thus treated.

In May, 1885, an original method of operating in a case three months after fetal death was adopted by Prof. T. Gaillard Thomas. Finding an enormous placenta attached to the ascending, transverse, and descending colon, he cut off its circulation by using the cobbler stitch in the line of the intestinal attachment, and then cut out the inclosed portion, which weighed four pounds; after which, he pursed up what remained into the abdominal wound. The patient recovered. This plan would not answer with the vascular placenta found in cases of primary laparotomy.

Closely resembling an extrauterine pregnancy, and one which it is almost impossible to distinguish from it by any system of touch or palpation, is that which occupies the cavity of a uterus unicornis, and which is only second in danger to a Fallopian pregnancy, because of the fact that the fetal receptacle rarely escapes rupture during advanced gestation. One

exception to this I witnessed two years ago, in a primipara who had been a number of years married without impregnation. From the peculiar form of the lady's abdomen, and the mental and physical distress which accompanied the development of the fetus, and obliged her to spend much of her time in bed, her family physician was of the belief that the gestation was extrauterine, an opinion which was thought correct by an eminent consultant. As the physician in charge was an adept in abdominal surgery and very anxious to relieve the patient's distress, and at the same time save the life of the child, he called upon me to visit the case with him and consider the propriety of a primary laparotomy. This step I opposed, for three reasons: 1, The great mortality under the operation as shown by a collection of cases then in my possession. 2, The possibility that the fetus might prove to have some physical defect of vital moment. And 3, the uncertainty that I felt as to the fetus being extrauterine. The operation was fortunately abandoned; and as pregnancy advanced and particularly when labor commenced in too natural a form to be of a *pseudo* type, I became fully convinced that the fetus would be extruded *per vias naturales*, which in due time occurred. The fetus was a small but well-nourished female, that died in three days from obstruction of the bowels, which an autopsy showed to be due to an imperfect development of the whole duodenum and an imperforate rectum which the knife had failed to relieve. The woman, on careful examination, was shown to have a well-marked uterus unicornis, the pointed distal extremity or pseudo-fundus being carried obliquely to the right. The lady had a severe and tedious convalescence, being several months in recovering from the effects of the pregnancy and labor. Had this patient been operated upon, the ready separation and expulsion of the placenta would have shown the operation to have been a true gastro-hysterotomy. The case of Schreyer, operated upon on September 16th, 1836, and quoted in their respective works by Drs. Keller¹ and Parry² as an extrauterine laparotomy, was doubtless of the same character, as the placenta was detached spontaneously in a few minutes, and came away with its membranes. The woman made a rapid

¹ Keller, "Des Grossesses Extrauterines," Paris, 1872, p. 69. From *Monats. für Geburt.*, xiv., p. 283.

² Parry, "Extrauterine Pregnancy," Philadelphia, 1876, p. 229.

recovery, and the child lived: there were no adhesions to the containing sac, which was doubtless a thin-walled uterus of abnormal character.

Primary laparotomy in extrauterine pregnancy is a very rare and fatal operation—so rare, that only one operator out of twenty-six has had a second case. It is true that Mr. Lawson Tait, of Birmingham, has claimed to be an exception, both as to the number of his cases and the proportion of his cures. But he has given no detailed statement of the six cases which he says recovered, and I do not therefore feel justified in adding them to my record, which is complete, in describing the peculiar features of each individual case.

He has only published the particulars of one operation, but claims to have had seven in a period of five and one-half years; occurring in which period I have found eight to the credit of the rest of the world, with two recoveries. He stated on August 1st, 1884, before the British Medical Association, that he had operated once, losing the woman and saving the child; but on May 10th, 1886, wrote a letter to me, in which he claimed that he had operated seven times and had only lost one woman; three of the extrauterine children being then “alive and growing up.” Between these two dates were twenty-seven months, in which time, therefore, he must have had six operations in order, without a death. This would be certainly a marvellous run of success for this special operation, even for an operator of his ability in other forms of abdominal surgery. To have been called to six cases in a condition to require primary laparotomy within so short a period, is a marvel; but to have saved them all is little short of a miracle.

To measure the extent of Mr. Tait's claim, we have only to compare it with what has been accomplished by other men. Great Britain, without his detailed case, has a record of 5 operations in 23 years, saving 1 woman and 1 child. Germany has had 12 operations, 7 of them within the last 10 years, and all covering 74 years, saving 1 woman and 6 children. And all Europe and the United States, 26 operations under 25 operators, saving 3 women and 12 children. How poor is this success in overcoming the dangers of hemorrhage and septic poisoning, when measured by the claim of Mr. Tait: *six women saved out of seven*, or twice as many saved as in all the rest of the world. Mr. Tait must excuse the incredulity excited by this

startling announcement of his pen in the minds of many here and in his own country. He has chosen, whilst in the frequent habit of reporting his other cases in the journals, to withhold from his professional brethren the details of these. Professor Lazarewicz, of Russia, has done the world a service by showing the method by which he saved the only case yet recorded where gestation was advanced to the full period. Mr. Tait claims that he has a proprietary right to do what he pleases with his own cases: this is true; but how is he going to establish his extravagant claim without giving proof of his having had the individual cases? Men will doubt, and no one has a right to find fault with them for doing it, while the evidence calculated to remove the doubt is not produced. Doubts are not stationary when not removed; they grow into disbelief. Mr. Tait will appreciate the importance of reporting his six cases in detail when he bears in remembrance the charges he made against the hysterectomists of Germany in this JOURNAL for May, 1886, page 487, which were answered in the August number by the late Professor Carl Schroeder.

I have also omitted from my tabular record the complex case of Dr. E. Paul Sale, of Aberdeen, Mississippi, operated upon on March 3d, 1870, first by primary laparotomy for the removal of an extrauterine fetus, and immediately afterwards by hysterotomy, to extract from the uterus a second one. The woman died of septicemia in four days, and the children in six and twelve months, of broncho-pneumonia and measles, respectively. Case 19 was of the same double character, but Dr. Wilson did not deliver the extrauterine fetus by laparotomy until the woman had recovered from the birth of the intrauterine twin; the case is, therefore, a legitimate one for the table.

Secondary laparotomy after the abdominal pointing of a fetal abscess is a very ancient operation. The deliberate opening of a sound abdominal wall for the extraction of a dead fetus is believed to have been done on the first occasion in 1594 by Dr. Paul B. Calvo[†] upon a woman of twenty-six, who died in eleven days. The first primary laparotomy on record dates back but seventy-four years; and the present classification grew, of necessity, from the importance of having distinguishing titles for the operations before and after the death of the fetus; and the term *primary* does not apply to the same ope-

[†] Drs. Limerick & Duvernac.

Aug. 20, 1895.

Table of Primary Laparotomies

No.	Date.	Operator.	Locality.	Age.	Number of Pregnancy.	Duration of Gestation.	Result to Woman.
1.	Aug. 29, '13	Dr. Brückert	Berlin	32.	3d.	9 months	Died in 40 hours..
2.	Dec. 7, '14	Dr. Domenico Novara.	Porto Maurizio	38.	5th.	9 months	Died in 33 days..
3.		Dr. Mattfeld	Tübingen	24.	3d.	9th mo.	Died in 20 days..
4.	Mar. 1, '41	Dr. Hauff	Germany?	?	1st.	34 weeks	Died in 24 hours..
5.	1852	Prof. Pietro Lazzati	Milan		?.	9 months	Died in 29 hours..
6.	Mar. 27, '63	Prof. Eugène Koeberlé.	Strasbourg	39.	3d.	9 months	Died soon after operation.
7.	Apr. 21, '64	Dr. Robert Greenhalgh	London	40.	2d.	8 months	Died in 32 hours..
8.	Oct. 5, '72	Mr. John Scott	London	23	1st.	30 weeks	Died in 5 hours..
9.	Aug. 14, '75	Mr. Thos. Rich'd Jessop	Leeds	26.	2d.	33-34 wks	Recovered
10.	Mar. 5, '76	Prof. Otto Spiegelberg	Breslau	36.	2d.	40 weeks	Died in a few hours.
11.	May 25, '77	Dr. Heywood Smith	London	32.	4th.	9 months	Died in 22 hours..
12.	Nov. 5, '77	Dr. Henry Gervis	London	39.	9th.	36½ w'ks	Died in 56 hours..
13.	Aug. 19, '78	Dr. Ernst Fraenkel	Breslau	34.	3d.	33½ w'ks	Died soon after operation.
14.	May 29, '79	Prof. Carl Schroeder	Berlin	33.	7th.	34½ w'ks	Died in 36 hours..
15.	June 29, '79	Dr. M. Hofmeier	Berlin	38.	7th.	8 months	Died in 36 hours..
16.	Dec. 19, '79	Dr. B. Christian Vedeler	Christiania	40.	4th.	35 weeks	Died the next afternoon.
17.	Jan. 10, '80	Prof. C. C. Th. Litzmann	Kiel	29.	2d.	9 months	Died in 16 days..
18.	Jan. 31, '80	Mr. Lawson Tait	Birmingham	33.	7th.	9 months	Died on the 4th day.
19.	May 11, '80	Dr. Henry P. C. Wilson	Baltimore	24	4th.	9 months	Died in 90 hours..
20.	July 26, '80	Dr. W. Netzel	Stockholm	28.	3d.	9 months	Died in 48 hours..
21.	July 9, '81	Dr. August Martin	Berlin	39	3d.	7 months	Recovered
22.	July 13, '81	Dr. Giuseppe Beisone	Pinerolo, Italy	40.	1st.	9 months	Died on the 6th day.
23.	Feb. 15, '82	Dr. Hildebrandt	Königsberg	28.	2d.	9 months	Died on the 10th day.
24.	Oct. 3, '82	Dr. Hildebrandt	Königsberg	26.	7th.	34½ w'ks	Died in 17½ hours
25.	Nov. 4, '85	Prof. Lazarewicz	Kharkof	27.	2d.	9 months	Recovered
26.	Jan. 29, '86	Prof. A. Stadfeldt	Copenhagen	29.	1st.	9 months	Died in 38 hours..
27.	Mar. 30, '87	Dr. Joseph Price, Phila	Camden, N.	37.	5th.	7½ mos.	Died in 14 days..
28.	'85	Dr. John Williams	London	30	2 ^d	35 th week	Recovered.
29.	'87	Mr. F. H. Champneys	London			7 th month	Died in 11½ weeks.
30.	Oct. 20, '87	Prof. Aug. Bruck	Vienna	30		9 months.	Recovered.

in Extrauterine Pregnancy.

Result to Child.	Remarks.	References.
Lived.....	Sac ruptured, and peritonitis before operation. Intestines could not be replaced. Death from peritonitis.	Magazin für die gesammte Heilkunde. Rust, 1819, Bd. iii., S. 1.
Lived.....	Woman died of slow septicæmia.	Jour. Univer. des Sciences Med., 1816, T. iii., p. 119-124.
Lived.....	Woman died of subacute peritonitis. Placenta left in place in the iliac fossa.	Neue Zeitschrift für Geburts., 1884, Bd. 1, S. 134.
Died in 50 hours.....	Placenta removed by tearing and cutting. Death from "collapse."	Medicinische Annalen (Heidelberg, 1842, Bd. viii., S. 439.
Alive, but did not respire.	Operation demanded by serious condition of patient.	Manuale del Parto Mechanico od' Instrumentale del Lovati, Milano, 1884, p. 194.
Died on 2d morning..	Operation <i>in extremis</i> : prior existing peritonitis: hemorrhage from a tear in placenta.	Gazette Med. de Strasbourg, 1863, T. x., p. 160.
Died in a few minutes	Operation performed <i>in extremis</i> .	Medical Mirror, Nov. 1864, p. 689.
Died on 2d day.....	Pulse 185; temp. 104.2° at operation. Death from heart clot.	Trans. Obstet. Soc., London, 1873, vol. xv., p. 309.
Lived 11 months.....	Fetus free in abdomen; no cyst. Patient in critical condition.	Trans. Obstet. Soc., London, 1876, vol. xviii., p. 261.
Lived 3 months.....	Sac ruptured, peritonitis, pulse 148, before operation: placenta incised; severe hemorrhage.	Archiv für Gynäkol., 1879, Bd. xiii., S. 74.
Heart beat 30 to 40 minutes.	Woman believed to have died of hemorrhage.	Trans. Obstet. Soc., London, vol. xx., 1878, p. 5. Also by letter, 1887.
Died in 6 hours.....	Woman died of hemorrhage.....	Brit. Med. Jour., vol. ii., 1877, p. 884.
Died in 24 hours.....	Woman died from detaching placenta.	Archiv für Gynäkol., 1879, Bd. xiv., S. 197.
Lived.....	Death from hemorrhage, in operation, and on following day.	Zeitschrift für Geburtshilfe und Gynäkol., 1880, Bd. v., S. 115.
Lived.....	Woman died of hemorrhage.	Zeitschrift für Geburtshilfe und Gynäkol., 1880, Bd. v., S. 115.
Died the next day....	Patient had gonorrheal endometritis, also peritonitis at time of operation.	Norsk Magazin for Lægevidenskaben, Juni, 1880, T. B. 6te Hefte, S. 88.
Died in 15 minutes...	Signs of sepsis on 12th day, with repeated hemorrhages: placenta removed on 16th day.	Archiv für Gynäkol., 1880, Bd. xvi., S. 362.
Lived.....	Death attributed to "prolonged shock."	Obstet. Jour. Great Brit. and Ireland, Oct. 1880, vol. ii., p. 577.
Lived 18 months.....	Patient had high pulse and temperature: collapse; probably septic.	Trans. Am. Gynecol. Soc., 1882, vol. vi., p. 461.
Died in 48 hours.....	Placenta divided in operation, producing severe hemorrhage.	Hygiea (Stockholm), 1881, vol. xviii., p. 169.
Did not breathe, cord pulsated.	Fetus had a large occipital encephalocele.	Berliner Klinische Wochen., Dec. 26th, 1881, Bd. xviii., S. 753-775.
Lived.....	Patient appears to have died of septicæmia.	Gazetta Medica di Torino, 1881, vol. xxxii., p. 553-557.
Lived.....	Woman almost moribund from peritonitis when operated on: sank slowly afterward.	Berliner Klinische Wochen., Nr. xxix., July 20th, 1885, S. 465.
Asphyxiated, was not resuscitated.	Woman operated on <i>in extremis</i> , and died in collapse.	Berliner Klinische Wochen., Nr. xxxix., July 20th, 1885, S. 465.
Lived 21 days.....	Cyst and part of placenta drawn out, and pursed up in closing abdominal wound.	Vrach. St. Petersburg, 1886, vii., 76-115. Repertoire Universel de Nouvelles Archives d'Obstetrique et de Gynecol., 25 July 1886, p. 277-279.
Lived.....	Woman apparently died of internal hemorrhage.	Hospitals Tidende, Sept. 22d, 1886, p. 880.
Died in 4 hours.....	Sac ruptured, and peritonitis prior to operation. Woman died of hemorrhage.	Communicated by the operator, April 19th, 1886.
Alive.		Brit. Med. Jour Dec 3. Lancet Dec. 3 - 1887.
Alive.	Woman died of septicæmia.	" " " " " " " " " " " "
Lived 20 days.	Sac intraligamentous - was excised.	Wiener Med. Woch. Nos. 48. 49. 50 - 1887.

ration if the fetus extracted is too young to be considered of *viable* age, although it may be alive, and live, as such premature infants sometimes do, for several hours. Dr. Goodell had a case of this order a few years ago which proved fatal; a common result, except where the placenta and cyst can be ligated and exsected *en masse*; this can sometimes be done in the fourth, fifth, and sixth months.

According to the calculation of Bandl. of Vienna, one extra uterine pregnancy occurs to twelve thousand intrauterine cases. This may be correct as to hospital work, but it is impossible to make a reliable estimate from all the forms existing in a largely populated kingdom or empire. I am inclined to believe, from what I have met with in private practice, that the cases must be much more numerous. Whatever this estimate should be, it is certain that the operation of primary laparotomy has been of very great rarity. When the operation of Professor Lazarewicz was reported in St. Petersburg, learned gynecologists declared that, although the secondary operation had been several times performed with success in Russia, this was the first instance in which the primary one had been undertaken in that empire. It has never been done in Boston, New York, or Philadelphia, as far as can be ascertained, and the two cases in Baltimore and Camden are all that can be credited to the United States, where the secondary operation has been performed a number of times in the last fifteen years. France is represented by but one case; Italy by three; Denmark, Norway, and Sweden by one each; and London, with her four millions of people, by ^{six} ~~four~~, which is a large proportion when compared with many other cities and regions.

329 SOUTH TWELFTH STREET.

September 13th, 1887.
